

REPORT

ON THE

SANITARY CONDITION

OF THE

KIRKHAM URBAN DISTRICT,

FOR THE YEAR 1913.

*To the Chairman and Members of the Kirkham
Urban District Council.*

GENTLEMEN,

I have pleasure in submitting for your consideration my Report on the Health and General Sanitary Conditions of your District. The Report will contain an account of the various influences affecting the health of the community; also the various tables of vital statistics. I will endeavour also to follow out the memorandum of the Medical Officer of the Local Government Board.

The area in acres is 857, and the population, estimated to the middle of the year, is 3,838, the increase being due to the excess of births over deaths. This population does not include 72 in the Children's Home.

VITAL STATISTICS.

BIRTHS.—The births registered in the Urban District during the year number 84, and, in addition, two births occurred outside the district, which, according to the Registrar-General, are to be accepted as belonging to Kirkham, making a total of 86—43 males and 43 females. This total gives a rate calculated per 1,000 of the population of 22·4 or 1·2 per 1,000 in excess of the rate for last year, and 2·7 above the rate for 1911. The average birth-rate for the decennial period, 1903-12, was 25·1,

MORTALITY.

DEATHS.—Deaths registered during the year numbered 57, one of which is excluded, as the person did not belong to Kirkham, and 12 deaths have had to be included of persons who, having a residence or belonging to this district, died elsewhere. These deaths are transferred to me by the Registrar-General through the Public Health Department of the County Council. The nett deaths belonging to the district totalled 68 (31 males and 37 females), producing a rate of 17·7 per 1,000 of the estimated population. Last year the death-rate equalled 14·1 per 1,000, or 3·6 below the average for the present year. In 1911 it was 25, 14·1 in 1910, 16·2 in 1909. The average for the ten years, 1903-12, was 17·5, or a fraction less than the rate for 1913. The increase, as compared with last year, is entirely due to the abnormal number of deaths of children under the age of one year, to which I refer later. The deaths known as “inward transfers” occurred in the following Public Institutions:—

| | | | | | | |
|-----------------------------------|-----|-----|-----|-----|-----|---|
| Fylde Union Workhouse | ... | ... | ... | ... | ... | 8 |
| Whittingham and Lancaster Asylums | ... | .. | ... | | | 2 |
| Preston Royal Infirmary | ... | ... | ... | ... | ... | 1 |

and one death of a Kirkham resident occurred in the County Borough of Rochdale.

DEATHS FROM THE PRINCIPAL EPIDEMIC DISEASES. — Eight deaths were ascribed to the principal epidemic diseases, viz.: Measles 2, Diarrhœa and Enteritis 6. The epidemic death-rate corresponded to 2·08 per 1,000, against a rate of 1·83 last year, 3·69 in 1911, 1·73 in 1910, 0·76 in 1909, 4·13 in 1908, and an average of 1·96 for the decade, 1903-12. The deaths from Measles were of children aged 3 and 10 months, and the Diarrhœa and Enteritis deaths were of children aged 24 days, 2 months, 2 at 4 months, 7 months and 16 months.

PHTHISIS (Pulmonary Tuberculosis).—Four deaths were due to this disease, or a rate of 1·04 per 1,000. Last year 3 deaths were caused, giving a rate of 0·78. In 1911 this rate was 2·37 and in 1910 was 1·23. The average death-rate for the last ten years was 1·3.

BRONCHITIS AND PNEUMONIA contributed 8 deaths (4 each), corresponding to a rate of 2·08. In 1912 only 4 deaths were due to these respiratory diseases, a rate of 1·04.

INFANTILE MORTALITY.—The most noticeable feature of the year's statistics is the abnormally large number of deaths of children under the age of one year, no less than 30 being registered, or more than double the number recorded last year. The mortality rate, calculated on the number of registered births, reached the unprecedented figure of 348 per 1,000, against a rate of 172 in 1912, 240 in 1911, 170 in 1910, and an average of 150 for the ten years, 1903-12. The rate for the year under review is the highest recorded for the district, the nearest approach being in 1891, when it was 280. Table IV. appended analyses the causes of these infant deaths, and it will be noted that 8 children did not survive one week. Twelve of the deaths were ascribed to Atrophy, Debility and Marasmus, 5 to Diarrhœa, 3 to Pneumonia, 2 to Measles, 2 to Convulsions, 2 to Congenital Malformations, 1 to Premature Birth and 3 to other causes. Judging from the districts where these infants' deaths occurred, there is ample evidence as to the causes of the above-mentioned diseases, the children being brought up in stuffy, ill-ventilated rooms, rooms overcrowded and the food poisoned by dirty surroundings, privy middens at the back of these houses forming breeding grounds for flies and germs, and dust, dirt and germs blown into the houses, and thus on to milk or other foods. Besides this, wrong feeding of infants has much to do in producing these diseases, leading ultimately to death, which, if care was exercised, would, to a great extent, be prevented. I may say that some of the property is in such a state, dilapidated buildings in all stages of decay, that even tenants with the best intentions would find it impossible to keep the surroundings clean. At the same time, if some of the working-classes took more pride in keeping their houses clean and airy, and wasted less money in frivolity or worse, there would be a smaller death-rate among infants. I quite expect our infants' mortality will be the largest in the county, and probably in the whole country, and I hope some earnest endeavour will be made to prevent a repetition of this.

DEATHS OF PERSONS OVER 65 YEARS OF AGE.—Seventeen deaths took place, viz. :—1 at 65, 2 at 68, 1 each at 69 and 71, 2 at 72, 1 at 73, 2 at 74, 4 at 75 and 1 each at 77, 83 and 91.

EPIDEMIC DISEASES.

Twenty-four cases were notified under the Provisions of the Infectious Diseases (Notification) Act, viz. :—Scarlet Fever, 11; Diphtheria, 8; Enteric, 1; Erysipelas, 4. In addition, 10 cases of Tuberculosis were also notified.

The following summary shows the number of notifications in each of the past five years, 1909-13.

| | 1913 | 1912 | 1911 | 1910 | 1909 | TOTAL |
|-------------------------|-----------|-----------|-----------|-----------|-----------|------------|
| Scarlet Fever | 11 | 3 | 3 | 7 | 11 | 35 |
| Diphtheria | 8 | 3 | 13 | 8 | 4 | 36 |
| Typhoid Fever | 1 | 9 | 9 | 7 | 10 | 36 |
| Erysipelas | 4 | 1 | 1 | 2 | 3 | 11 |
| Puerperal Septicaemia.. | — | 2 | — | — | — | 2 |
| Tubercular Diseases .. | 10 | 5 | 9 | — | — | 24 |
| | <u>34</u> | <u>23</u> | <u>35</u> | <u>24</u> | <u>28</u> | <u>144</u> |

Nineteen cases of these infectious diseases were removed to the Isolation Hospital at Moss Side, where 10 Scarlet Fever cases and all the Diphtheria and Typhoid cases made a good recovery. Two of the Tuberculosis cases were treated in a Sanatorium, and are now doing fairly well.

This table gives the periods when the infectious diseases occurred, and the parts of the town affected :—

| | | | | | | | | |
|-------|---|--|----|----|----|----|----|---|
| April | { | Scarlet Fever—Ribby Road 1 | .. | .. | .. | .. | .. | 2 |
| | { | Erysipelas —Marsden Street 1 | .. | .. | .. | .. | .. | |
| June | { | Scarlet Fever—Marsden Street 1, Poulton Street 1, Old Row 1 | .. | .. | .. | .. | .. | 6 |
| | { | Diphtheria —Preston Street 2 | .. | .. | .. | .. | .. | |
| | { | Erysipelas —Ribby Road 1 | .. | .. | .. | .. | .. | |
| July | | Scarlet Fever—Marsden Street 1 | .. | .. | .. | .. | .. | 1 |
| Sept. | | Scarlet Fever—Children's Home 1 | .. | .. | .. | .. | .. | 1 |
| Oct. | { | Scarlet Fever—Marsden Street 1, Church Street 1, Children's Home 1 | .. | .. | .. | .. | .. | 5 |
| | { | Diphtheria —Poulton Street 1 | .. | .. | .. | .. | .. | |
| | { | Erysipelas —Freckleton Street 1 | .. | .. | .. | .. | .. | |

| | | | | | | |
|-------|---|---|----|----|---|---|
| Nov. | { | Scarlet Fever—Ward Street 1, Swarbrick Street 1 | .. | .. | } | 5 |
| | | Diphtheria —Ribby Road 1, Swarbrick Street 1 | .. | .. | | |
| | | Erysipelas —Sunny Bank 1 | .. | .. | | |
| Dec. | { | Diphtheria —Moor Street 1, Poulton Street 2 | .. | .. | } | 4 |
| | | Enteric Fever—Mill Street 1 | .. | .. | | |
| <hr/> | | | | | | |
| 24 | | | | | | |

SCARLET FEVER.

Cases 11. Deaths 0.

As will be seen from the foregoing table, there was no direct infection between these cases, occurring as they did at long intervals, and in different months. I think that there is not much doubt of the origin of the four cases—3 in Marsden Street and 1 in Poulton Street—there being a privy midden situate between the backs of these two streets, this privy belonging to a common lodging-house. As for the remaining cases, they were apparently sporadic in character, occurring as they did in various parts of the town, where they were not likely to come in contact with each other. Even the two cases which occurred in the Children's Home were independent of each other, as the first case was removed to the Hospital, and the second case occurred five weeks after, a week at least before the return home of the first case. The cause of these cases was doubtless due to an old drain having been dug up. Still there were 72 children in the Home at the time and the above two cases were the only ones.

DIPHTHERIA.

Cases 8. Deaths 0.

Two occurred in the same house in Preston Street in June; here a drain had been blocked up. The next two cases, no cause could be ascribed. As to the remainder, there were sanitary defects, which have been remedied.

TYPHOID or ENTERIC FEVER.

Cases 1. Deaths 0.

This case occurred in one of the poorest streets in the town; the yard was in a very bad state,

ERYSIPELAS.

Cases 4. Deaths 0.

Of these cases very little can be said, as they seemed to be due to exposure to cold while in a feeble state of health.

The following table shows the birth and death rates, with the epidemic and infantile mortalities during the past 10 years :—

| Year | | Birth-rate | | Death-rate | | Epidemic Death-rate | | Infantile Death-rate |
|------|-----|------------|-----|------------|-----|------------------------|-----|-------------------------|
| 1904 | ... | 26·1 | ... | 17·7 | ... | 0·5 | ... | 103 |
| 1905 | ... | 26·7 | ... | 20·0 | ... | 3·7 | ... | 180 |
| 1906 | ... | 28·0 | ... | 16·0 | ... | 2·1 | ... | 138 |
| 1907 | ... | 27·4 | ... | 16·0 | ... | 0·52 | ... | 163 |
| 1908 | ... | 23·7 | ... | 15·0 | ... | 0·77 | ... | 183 |
| 1909 | ... | 24·3 | ... | 16·2 | ... | 0·76 | ... | 130 |
| 1910 | ... | 21·0 | ... | 14·0 | ... | 0·99 | ... | 187 |
| 1911 | ... | 19·7 | ... | 25·0 | ... | 3·69 | ... | 240 |
| 1912 | ... | 21·2 | ... | 14·1 | ... | 1·83 | ... | 172 |
| 1913 | ... | 22·4 | ... | 17·7 | ... | 2·08 | ... | 348 |

A—THE NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

1. PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.—These are mainly hilly, with fairly large undulations extending throughout the district, and as the soil is mainly sand, clay and loam, and the subsoil mostly sand and gravel, with a little clay, there is a tendency to a good natural drainage.

2. THE SOCIAL CONDITIONS are chiefly industrial, a large proportion of the population being engaged in cotton mills. spinning and weaving. A fairly large proportion of the population are engaged in trades in neighbouring towns, but reside in your district for so-called economical reasons, which will be referred to later. As regards influence of occupation on the people, this is shown by an extremely heavy infantile mortality, viz., 348 per 1,000 births. This, in my opinion, is caused by the mothers working too long in the mills while pregnant; also by carrying their infants out to nurse in the morning in all kinds of weather, by indiscretions in

diet on the part of the mothers themselves, and by too much hand-feeding of children. This might be counteracted in time by the teaching of the older girls the principles of infant feeding and management. The cost of Poor-law Relief in Kirkham amounts to £186. As to Hospital Relief, full advantage is taken of Moss Side Hospital, as will be seen in Table II., and for Medical and Surgical Relief the Royal Infirmary at Preston supplies Hospital.

B—SANITARY CIRCUMSTANCES OF THE DISTRICT.

WATER SUPPLY.—The whole town receives its supply from the Fylde Water Board, which is everything that can be desired, except when there is a long drought. There are no sources of contamination, and no cases of lead-poisoning have occurred.

RIVERS AND STREAMS.—Nothing can be said on this subject, as no rivers and streams pass through the district.

DRAINAGE AND SEWERAGE.—In all the main streets the sewerage is satisfactory. Five manholes and three lengths of main sewer, consisting some of 9in. and some 15in. pipes, have been laid, but in several of the back and side streets there still remain the egg-shaped sewer pipes. We hope that this matter of replacing these egg-shaped pipes with proper socketted earthenware pipes will be attended to before long.

CLOSET ACCOMMODATION.—This consists of w.c.'s, tipplers, latrines, pail closets and privies. The number of each at the present time is as follows :—

| | | | | | | | |
|-----------------|-----|-----|-----|-----|-----|-----|-----|
| Water closets | ... | ... | ... | ... | ... | ... | 334 |
| Tippler closets | | ... | ... | ... | ... | ... | 28 |
| Latrines | ... | ... | ... | ... | ... | ... | 39 |
| Pail closets | ... | ... | ... | ... | ... | ... | 18 |
| Privies | ... | ... | ... | ... | ... | ... | 353 |

That is, 36 water closets have been added during the year, and four new pail closets have been erected on the recreation ground by the Council,

SCAVENGING.—This is carried out in a satisfactory manner by the Council with covered carts under the Inspector's supervision. A weekly removal of ashbins and pail closets is effected, and the privies and ashpits when required.

SANITARY INSPECTIONS OF DISTRICT.—Systematic inspections of the district have been made by the Inspector, dealing principally with defective privies, paving backyards and all bad drainage.—*See Inspector's Report.*

PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYE-LAWS AND REGULATED.—In regard to this, there are only two offensive trades in the district, one a rag and bone store, the other a tripe-boiler. These are carried on in a satisfactory manner. There are two lodging-houses in the district, which have been frequently inspected. The midden of one of these was brought under your consideration,—this has been remedied, as it no doubt gave rise to several infectious diseases in the immediate neighbourhood.

SCHOOLS.—The sanitary condition of the Schools is perfectly satisfactory. The Schools are four in number, and contain the following number of scholars :—

| | | | | | | |
|----------------|-----|-----|-----|-----|-----|-----|
| Grammar School | ... | ... | ... | ... | ... | 96 |
| C.E. School | ... | ... | ... | ... | ... | 375 |
| Council School | ... | ... | ... | ... | ... | 146 |
| R.C. School | ... | ... | ... | ... | ... | 241 |

No Schools were closed on account of epidemic disease.

a—FOOD (MILK SUPPLY).—Taken as a whole, it is good. Of 10 samples taken by the Police Authorities for analysis all but one were genuine ; in this case a summons was issued and defendant convicted. Any milk that is imported comes from the immediate rural district.

THE SALE OF MILK REGULATIONS, 1912.—By these regulations, when a sample of milk contains less than 8·7 per cent. of milk solids other than milk fat, it shall be presumed to be not genuine by reason either of addition of water or the abstraction of milk solids other than milk fat.

THE PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912.—These apply to the prohibition of preservatives in milk, restriction in the use of preservatives in cream, declaration of amount of preservatives used, restrictions on importation of cream containing preservatives, and regulations in regard to labelling of preserved cream.

MILK AND DAIRIES BILL.—The main objects of this Bill are to provide for:—

1. The more effective registration of dairies and dairymen.
2. The inspection of dairies and examination of cows.
3. The prohibition of the supply of milk from a dairy where such milk has caused, or is likely to cause, infectious diseases, including Tuberculosis.
4. The prevention of the sale of tuberculous milk.
5. The regulation of the importation of milk, so as to prevent danger to public health.
6. The issue of regulations for securing the supply of pure and wholesome milk.
7. The establishment by local authorities in populous places of milk depots for the sale of milk specially prepared for infants.

As there have been several cases of Diarrhœa and Enteritis, causing infantile deaths, there is a great probability that contaminated milk had had something to do with the cause of these deaths, as well as helping to spread epidemic diseases.

b—OTHER FOODS.—A careful outlook has been kept in this matter, but nothing has been observed which would justify the condemning of any article of food as unfit for human consumption. The premises where foods are prepared, stored or exposed for sale are, on the whole, good, with the exception of one slaughter-house, where the walls and floors are in a bad state. This condition will be remedied directly, as steps have been taken to enforce the necessary improvement.

c—SALE OF FOOD AND DRUGS ACT.—As mentioned, 10 samples of milk were taken for analysis, and all were satisfactory except one, where a conviction was obtained.

d—MILK AND CREAM REGULATIONS.—This matter was referred to under milk supply.

HOUSING.—The number of houses inspected under Section 17 of the Act, 1909, 227 ; number of houses in such a state as to be unfit for human habitation, 20 ; number of representations to authority with a view to having closing orders, 4 ; number of closing orders made, 0 ; number of houses in which defects were remedied, nil ; no closing orders made as yet. Classification of defects found : no back doors, 7 ; defective roofs, 10 ; defective floors, 7 ; defective ventilation, 17 ; defective air-space, 1 ; damp walls, etc., 14 ; overcrowding (been remedied), 4. Ten plans of dwelling-houses have been approved, of these six have been completed and certified fit for habitation, the remaining 4 are in the course of erection. Plans have been also approved for one new wash-house, two new w.c.'s, a Public Bath, Children's Home and a Sunday School. The present population being 3,838, and the number of houses 923, this being about the rate of 4·1 persons per house, and as there is a prospect of a new mill being erected soon, the supply of houses is insufficient for the population. The great bulk of houses is of the working-class type, some of them being very old, where the rents are about £5 per annum. It is to a large extent in these houses where we have the large infantile mortality. They are occupied to a great extent by families where the husband works in some neighbouring town, and in many cases where the husband does not work at all, the wife working in the factory and maintaining the family in some fashion. Of the houses ranging in rent between £5 and £15, there are 728, and of these there are a certain number barely fit for human habitation. Some could be remedied at a small outlay, but others are past repair.

C—SANITARY ADMINISTRATION OF DISTRICT.

1. THE WORK OF THE INSPECTOR OF NUISANCES includes that of Surveyor.

2. HOSPITAL ACCOMMODATION AVAILABLE FOR INFECTIOUS DISEASES.—There are no Hospitals in the district, but advantage is taken of those in neighbouring districts, viz. : The Fylde Isolation Hospital at Moss Side, the Small-pox Hospital and the Tuberculosis Sanatorium at Elswick. Full advantage is taken of the Isolation, all but one of the cases notified being treated there. There has been no case of Small-pox. Of the ten cases of Tuberculosis, two were treated at Sanatoria. There were no deaths from epidemic diseases, but 4 deaths occurred from Tubercular disease. As mentioned before, all except one case of Scarlet Fever were removed to the Isolation Hospital.

3. AS TO ADMINISTRATION, Committees are formed by representatives of the various districts.

4. CHEMICAL AND BACTERIOLOGICAL WORK.—There has been no occasion for such during the year, as the cases which occurred were mostly sporadic—4 cases, 2 of Scarlet Fever and 2 of Diphtheria in the same neighbourhood—the origin could easily be accounted for. There have been no non-notifiable acute infectious diseases during the year.

D—PREVALENCE OF, AND CONTROL OVER, ACUTE INFECTIOUS DISEASES.

On receipt of a notification of an infectious disease, it is visited as soon as possible by the Sanitary Inspector, and all particulars as to the origin of the disease are obtained, and all precaution to prevent the spread of the disease are adopted, and the people are prevailed upon as much as possible to make use of the Isolation Hospital. Any cases treated at home are visited by the Inspector and disinfectants supplied.

E—PREVALENCE OF, AND CONTROL OVER, TUBERCULOSIS.

There have been 10 Tubercular notifications, 8 of Pulmonary and 2 of other forms of Tuberculosis.—*See Table II.*

On receipt of a notification, the Medical Officer or the Sanitary Inspector makes a visit and tries to find out the origin and history of the cases, and by means of pamphlets and verbal instructions tries to limit the spread of the disease. The cases notified each week are sent out with particulars to the County Medical Officer.

Four of the cases notified terminated fatally. Two were removed to a Sanatorium—they have now returned home—one continues apparently well, the other had improved while away, but now since resuming his work as a mill-hand has decidedly gone back in condition. The remaining cases are being treated with medicine and nourishment, and are doing fairly well.

On the occasion of removal to a Sanatorium, or in the event of a death, the dwellings are thoroughly disinfected by removal of wallpapers, spraying and fumigation.

A Sanatorium, as before mentioned, is being prepared at Elswick, which I expect will be ready for use before long.

F—INVESTIGATION OF OTHER DISEASES.

There has been no particular prevalence of any disease during the year with the exception of Diarrhœa among children. This disease has caused six deaths in the forms of Diarrhœa and Enteritis. These cases have occurred, three of them in three adjoining houses, one each in the openings off other streets ; all of them in parts of the town where the sanitary arrangements are far from good. The above six cases, with others whose deaths were the result of Premature Birth, Debility from Birth, Marasmus and Atelectasis, account for the majority of the 30 infantile deaths. These all have occurred in the worst parts of the town, where bad sanitary conditions prevail, to which your attention has been repeatedly drawn, but without much improvement so far. The bulk of these deaths might have been avoided by keeping the houses and backyards more sanitary, by cleanliness on the parts of the mothers, by nursing the children, and by some knowledge of proper feeding and management of infants. The habits of some of these people in taking their infants out in the morning in all kinds of weather to be nursed while they are working in the mills, of others

who leave their children in the care of older children while they leave their houses to associate with their neighbourhood, all tends to a heavy infantile mortality. These all point to the need of a properly trained nurse to look after the newly-born children, and to some means of instructing the mothers in nursing. I think that the period of women ceasing work in the factories and the time of parturition should be increased, and thus prevent, to a great extent, premature birth and death from Debility from Birth, which, in my opinion, are in many cases one and the same cause of death.

On looking over the table giving the birth, death, infantile and epidemic death-rates, large as the three latter are, I cannot be surprised when I look over the condition of certain parts of the district, with houses without back doors, bad privy accommodation, backyards in a disgraceful state from want of swilling and bad paving, and in many cases no paving at all, and numerous other insanitary conditions. With such conditions prevailing we are bound to have high death-rates. If the town was in a valley instead of on hills one would dread to think of the results.

G—There is not one qualified midwife in the district, the parturient women having to depend on registered midwives in the neighbouring township of Wesham, but a large number of labours are attended by so-called handy neighbours. There is a pressing and urgent need for a qualified midwife, provided some means were taken to put a stop to the work of these untrained women. You have not adopted the Notification of Births Act. This, with a well-trained midwife or nurse, would have a great deal to do in reducing the infantile mortality.

This concludes my Report, and I regret to say that there has not been at all satisfactory progress, matters having been allowed to remain in *statu quo* for at least 25 years.

I hope that next year's Report will be more favourable in every way.

I am,

Yours obediently,

CHARLES COURT.

TABLE I.—VITAL STATISTICS OF WHOLE DISTRICT during 1913 and previous years.

| YEAR | Population estimated to middle of each year | BIRTHS | | | TOTAL DEATHS REGISTERED IN THE DISTRICT | | TRANSFERABLE DEATHS | | NETT DEATHS BELONGING TO THE DISTRICT | | | |
|------|--|----------------------------|---------------------------------|------|---|------|--|---|---------------------------------------|----------------------------------|--------------------------------|------|
| | | Un- corrected Number | Nett | | Number | Rate | of Non- residents registered in the District | of Resi- dents not registered in the District | Under One Year of Age | | At all Ages | |
| | | | Number | Rate | | | | | Number | Rate per 1,000 Nett Births | Number | Rate |
| | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 1908 | 3,870 | .. | 92 | 23 | 59 | 15 | .. | .. | 17 | 183 | 71 | 18 |
| 1909 | 3,942 | .. | 96 | 24 | 57 | 14 | .. | .. | 13 | 130 | 64 | 16 |
| 1910 | 4,036 | .. | 88 | 21 | 46 | 11 | .. | .. | 15 | 187 | 57 | 14 |
| 1911 | 3,793 | 72 | 75 | 19.7 | 72 | 18 | 1 | 25 | 18 | 240 | 95 | 25 |
| 1912 | 3,820 | 78 | 81 | 21.2 | 40 | 10.4 | 1 | 15 | 14 | 172 | 54 | 14.1 |
| 1913 | 3,838 | 84 | 86 Males .. 43 Females 43 | 22.4 | 57 | 14.8 | 1 | 12 | 30 | 348 | 68 Males.. 31 Females 37 | 17.7 |

Area of District in acres (land and inland water)..... 857

Total population at all ages..... 3,793

Number of inhabited houses 922

Average number of persons per house .. 4

At Census of 1911

TABLE II.—CASES OF INFECTIOUS DISEASE notified during the year 1913.

| NOTIFIABLE DISEASE | NUMBER OF CASES NOTIFIED | | | | | | | | Total cases removed to Hospital | Deaths in Hospital of Patients Removed from this District |
|--|--------------------------|---------------|--------|---------|----------|----------|----------|----------------|---------------------------------|---|
| | At all Ages | At Ages—Years | | | | | | | | |
| | | Under 1 | 1 to 5 | 5 to 15 | 15 to 25 | 25 to 45 | 45 to 65 | 65 and upwards | | |
| Small-pox | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Cholera | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Plague | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Diphtheria (including Membranous Group)..... | 8 | 1 | 5 | 1 | 1 | 1 | .. | .. | 8 | .. |
| Erysipelas | 4 | .. | 1 | 1 | 1 | 1 | 1 | 1 | .. | .. |
| Scarlet Fever | 11 | .. | 8 | 1 | 1 | .. | .. | .. | 10 | .. |
| Typhus Fever | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Enteric Fever | 1 | .. | .. | 1 | 1 | .. | .. | .. | 1 | .. |
| Relapsing Fever | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Continued Fever | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Puerperal Fever | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Cerebro-spinal Meningitis | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Polio-myelitis | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Pulmonary Tuberculosis | 8 | .. | .. | 4 | 4 | 4 | .. | .. | 2 | .. |
| Other forms of Tuberculosis..... | 2 | .. | .. | 2 | 2 | .. | .. | .. | .. | .. |
| Ophthalmia Neonatorum | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| TOTALS..... | 34 | 3 | 14 | 10 | 5 | 1 | 1 | 1 | 21 | .. |

Isolation Hospital :—Moss Side. Sanatorium :—Elswick.

TABLE IV.—*INFANTILE MORTALITY, 1913.*

Nett Deaths from stated causes at various Ages under 1 Year.

| CAUSE OF DEATH | | | | Under 1 Week | 1-2 Weeks | 2-3 Weeks | 3-4 Weeks | Total under 4 Weeks | 4 Weeks and under 3 Months | 3 Months and under 6 Months | 6 Months and under 9 Months | 9 Months and under 12 Months | Total Deaths under 1 Year |
|---|-------------|----|----|--------------|-----------|-----------|-----------|---------------------|----------------------------|-----------------------------|-----------------------------|------------------------------|---------------------------|
| All Causes | Certified | .. | 8 | 2 | 1 | 1 | 12 | 5 | 6 | 5 | 2 | 30 | |
| | Uncertified | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Small-pox | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Chicken-pox | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Measles | | | | .. | .. | .. | .. | .. | 1 | .. | 1 | 2 | |
| Scarlet Fever | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Whooping Cough | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Diphtheria and Croup | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Erysipelas | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Tuberculous Meningitis | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Abdominal Tuberculosis | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Other Tuberculous Diseases | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Meningitis (<i>not Tuberculous</i>) | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Convulsions | | | | .. | .. | .. | .. | 1 | 1 | .. | .. | 2 | |
| Laryngitis | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Bronchitis | | | | .. | .. | .. | .. | .. | .. | 1 | .. | 1 | |
| Pneumonia (all forms) | | | | .. | .. | .. | .. | .. | .. | 2 | 1 | 3 | |
| Diarrhœa | | | | .. | .. | .. | 1 | 1 | 1 | 2 | 1 | 5 | |
| Enteritis | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Gastritis | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Syphilis | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Rickets | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Suffocation, overlying | | | | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | |
| Injury at Birth | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Atelectasis | | | | 1 | .. | .. | .. | 1 | .. | .. | .. | 1 | |
| Congenital Malformations | | | | 1 | .. | .. | .. | 1 | .. | 1 | .. | 2 | |
| Premature Birth | | | | 1 | .. | .. | .. | 1 | .. | .. | .. | 1 | |
| Atrophy, Debility & Marasmus | | | | 5 | 2 | 1 | .. | 8 | 2 | 1 | 1 | 12 | |
| Other Causes | | | | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| TOTALS | | | | 8 | 2 | 1 | 1 | 12 | 5 | 6 | 5 | 2 | 30 |

Nett Births in the year { legitimate.. 81 } 86
 { illegitimate 5 }

Nett Deaths in the year of { legitimate infants.. 27 } 30
 { illegitimate infants 3 }

KIRKHAM URBAN SANITARY AUTHORITY.

*To the Chairman and Members of the Kirkham
Urban District Council.*

GENTLEMEN,

I have the honour of presenting my Second Annual Report on the work done in the Sanitary Department during the year 1913. During the year 95 notices have been served with regard to the remedying of insanitary defects and the abatement of nuisances, chief of which were defective ashpits, drains, slopstone pipes and paving in backyards. Frequent inspections have been made of the drains and sanitary conveniences of the Schools and Factories in the town, and they have been kept in a clean and sanitary condition.

SEWERS.

A new 15-inch main sewer for a length of 80 yards has been laid in Station Road, and a new 9-inch sewer in Nelson Street. Two new manholes have also been made in Station Road and one in Nelson Street ; and we have the work in hand at present for extending the main sewer and the construction of two new manholes in Ribby Road. I have tested the drains, soilpipes and sanitary fittings of 16 houses by the smoke machine. Several defects were found and remedied. The drains, etc., were retested and passed. The blocking of drains is due to various causes, but where the cause of the trouble was due to carelessness on the part of the tenants they were cautioned and advised to flush the drains more frequently. The sanitary condition of the town is improving and I am glad to report that whenever it has been necessary to give notice of insanitary premises, such notice has been in all cases promptly and willingly complied with.

SCAVENGING.

The scavenging of the town is carried out in a satisfactory manner by our own men and horses and covered carts, under my personal supervision.

Privies in the town are gradually becoming less in number, and this year 23 have been converted into water-closets, and 4 new pail-closets have been erected on the Recreation Ground by the Council ; also 13 water-closets have been erected in connection with new houses which have been built during the year.

The following are the numbers of water-closets, tippler-closets, latrine-closets, pail-closets, privies and ashbins in the town at the present time :—

| | 1912 | 1913 |
|------------------------|------|------|
| Water-closets | 298 | 334 |
| Tippler-closets | 28 | 28 |
| Latrine-closets | 39 | 39 |
| Pail-closets | 14 | 18 |
| Privies | 376 | 353 |
| Ashbins | 156 | 176 |

The pail-closets and ashbins are emptied once a week.

The number of privies, pail-closets and ashbins emptied, and the loads of nightsoil, ashbin refuse and street-sweepings carted during the year are as follows :—

| | |
|--|------|
| Privies emptied and disinfected | 937 |
| Privy pails emptied and disinfected | 928 |
| Ashbins emptied and disinfected | 8840 |
| Loads of nightsoil carted to tip | 1235 |
| „ street-sweepings | 223 |
| „ ashbin refuse | 278 |

INFECTIOUS DISEASES AND DISINFECTIONS.

The following is the list of cases of infectious diseases notified and the number of disinfections during the year :—

| | |
|--|----|
| Number of cases notified of Enteric | 1 |
| „ „ Diphtheria | 8 |
| „ „ Scarlet Fever | 11 |
| „ „ Tuberculosis | 10 |
| „ „ Erysipelas | 4 |
| „ deaths from Phthisis | 4 |
| „ Schools disinfected | 4 |
| Total number of disinfections | 39 |

All cases were immediately visited upon the receipt of notification. Nineteen cases were removed to Moss Side Hospital, and after the removal of the patient the rooms were thoroughly disinfected with formalin. All the cases that were treated at home were visited from time to time, disinfectants left, and instructions given as to the proper isolation of the patients so as to prevent the spread of the disease. At the termination of a case treated at home the rooms were thoroughly disinfected by spraying with a strong solution of formalin and then fumigated with formalin in gaseous form.

FACTORIES AND WORKSHOPS ACT.

| | | | | | | | | |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|---|
| Bakers and Confectioners | ... | ... | ... | ... | ... | ... | ... | 9 |
| Boot Repairers | ... | ... | ... | ... | ... | ... | ... | 7 |
| Plumbers | ... | ... | ... | ... | ... | ... | ... | 2 |
| Joiners... | ... | ... | ... | ... | ... | ... | ... | 5 |
| Blacksmiths | ... | ... | ... | ... | ... | ... | ... | 2 |
| Cycle and Motor Repairers | ... | ... | ... | ... | ... | ... | ... | 2 |
| Tinsmiths | ... | ... | ... | ... | ... | ... | ... | 1 |
| Dressmakers | ... | ... | ... | ... | ... | ... | ... | 6 |
| Tailors | ... | ... | ... | ... | ... | ... | ... | 3 |

There are 28 Workshops and 9 Bakehouses in the town, which have been visited periodically. The workshops generally have been found to comply with the requirements as regards cleanliness, light and air-space, and I am glad to be able to record that the conditions under which the work is carried on in these workrooms is, from a sanitary point of view, very satisfactory. The bakehouses have been kept under supervision, and these premises are kept very clean, well-lighted and the walls and ceilings frequently limewashed, and the work conducted in a very satisfactory manner, thus the public may rely upon their bread and confectionery being made under the most hygienic conditions.

FOOD.

Careful inspections are made every week of all the food exposed for sale in the butchers' shops, greengrocers and fish and chip shops, to see that the food exposed is fit and wholesome and that the premises where the food is stored are kept in a clean and sanitary condition. No food has been condemned during the year,

BLACK SMOKE NUISANCE.

22 observations have been made of the amount of black smoke issued from the factory chimneys in the town, each observation being of 60 minutes duration. The observations were made at different times of the day, on different dates, and the period of emission of black smoke varied from $1\frac{1}{2}$ to 4 minutes per hour during the observation. I notified the owner of the laundry about the frequent emission of black smoke from his factory chimney, and since then he has used a coal which only produces a small amount of black smoke.

OFFENSIVE TRADES.

There are two Offensive Trades in the town; one a rag and bone store and the other tripe-boiling; these premises are visited regularly, and they have not been the source of any trouble.

COMMON LODGING-HOUSES.

| | | | | | | | | |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|---|
| Number registered | ... | ... | ... | ... | ... | ... | ... | 2 |
| Notices served to limewash | ... | ... | ... | ... | ... | ... | ... | 2 |

These Lodging-houses are frequently inspected by me and they have been kept in a clean sanitary condition. A nuisance which resulted from an insanitary midden at one of these lodging-houses has been remedied. The Marsden Street lodging-house is registered for 68 persons and the Freckleton Street lodging-house for 30 persons. No cases of infectious disease have occurred at these lodging-houses during the year.

SLAUGHTER-HOUSES.

There are 4 Registered Slaughter-houses in the town, which have been regularly visited, both during slaughtering operations and after. Notice to repair walls and floor of one slaughter-house was served on the owner which is being complied with. With this exception they have been kept clean and well-limewashed, and they are all well supplied with water for cleansing purposes. All the refuse is removed immediately after slaughtering.

DAIRIES, COWSHEDS & MILK-SHOPS ORDER.

There are 8 Registered Cow-sheds and Dairies in the District, and 57 visits have been made to these premises, which have been kept in a clean sanitary condition.

| | |
|---|------|
| Total number of visits and inspections | 4973 |
| Number of Preliminary Notices served by Inspector | 95 |
| Number of Statutory Notices served by order of Council | 0 |
| Number of rooms disinfected | 39 |
| Notice to limewash and cleanse | 38 |
| Filthy backyards cleansed under notice .. | 23 |
| Slopstone waste-pipes repaired | 9 |
| Drains opened out, cleansed and defects rectified ... | 15 |
| Defective paving in backyards repaired | 17 |
| Spouts and gutters cleaned and repaired | 11 |
| Privies improved and repaired | 42 |
| „ converted into water-closets | 23 |
| „ „ pail-closets | 1 |
| New pail-closets erected | 4 |
| Number of ashbins provided | 20 |
| „ tippler-closets repaired | 3 |
| „ drains tested with smoke test | 29 |
| Hens and pigeons removed from backyards under notice | 6 |
| Nuisances from overcrowding... .. | 4 |
| Number of inspections to new buildings | 276 |
| „ „ factories and workshops... .. | 143 |
| Notice to limewash workshop | 2 |
| Number of inspections to drains and sanitary conveniences to schools | 27 |
| Notice to provide back door to dwelling-houses ... | 17 |
| Notice to remove accumulation of manure from stables, etc. | 7 |

HOUSING, Etc., ACT.

I have estimated the number of Dwelling-houses in the town at 923 ; and taking the population of the town at the present time as 3838, there are on an average 4.1 people to each house.

| | | | | Houses |
|---|-------|-----|------------|---------|
| No. of houses where the yearly rent is from | £5 to | £10 | | 420 |
| „ | „ | „ | £10 to £15 | 309 |
| „ | „ | „ | over £15 | ... 194 |
| Total | | | | ... 923 |

During the year Plans for the following have been approved of by the Council :—

| | | | | | | | | |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|----|
| Dwelling-houses | ... | ... | ... | ... | ... | ... | ... | 10 |
| New Wash-house | ... | ... | ... | ... | ... | ... | ... | 1 |
| New Water-closets | ... | ... | ... | ... | ... | ... | ... | 2 |
| Public Baths | .. | ... | ... | ... | ... | ... | ... | 1 |
| Children's Home | ... | ... | ... | ... | ... | ... | ... | 1 |
| Congregational Sunday School | ... | ... | ... | ... | ... | ... | ... | 1 |

Of these 6 dwelling-houses have been completed and certified fit for habitation, and the two water-closets and wash-houses completed; the remaining buildings are in the course of erection.

The New Public Baths are expected to be completed and ready for use towards July. Owing to the scarcity of baths in many of the working-class houses, these Public Baths will prove to be a great boon to the inhabitants of the town. The latest heating, filtration and aeration plant is being installed, and by this means the water will be entirely filtered, aerated and changed every six hours, thus ensuring absolutely clear and pure water at all times, whilst an even temperature will be maintained.

The New Children's Homes are a fine block of buildings, with accommodation when completed for 72 children. The buildings are well elevated and have frontage both to Station Road and Moor Street.

I am, Gentlemen,

Yours obediently,

JAMES R. HOLMES,

M.I.H., A.R.S.I.,

Sanitary Inspector.

